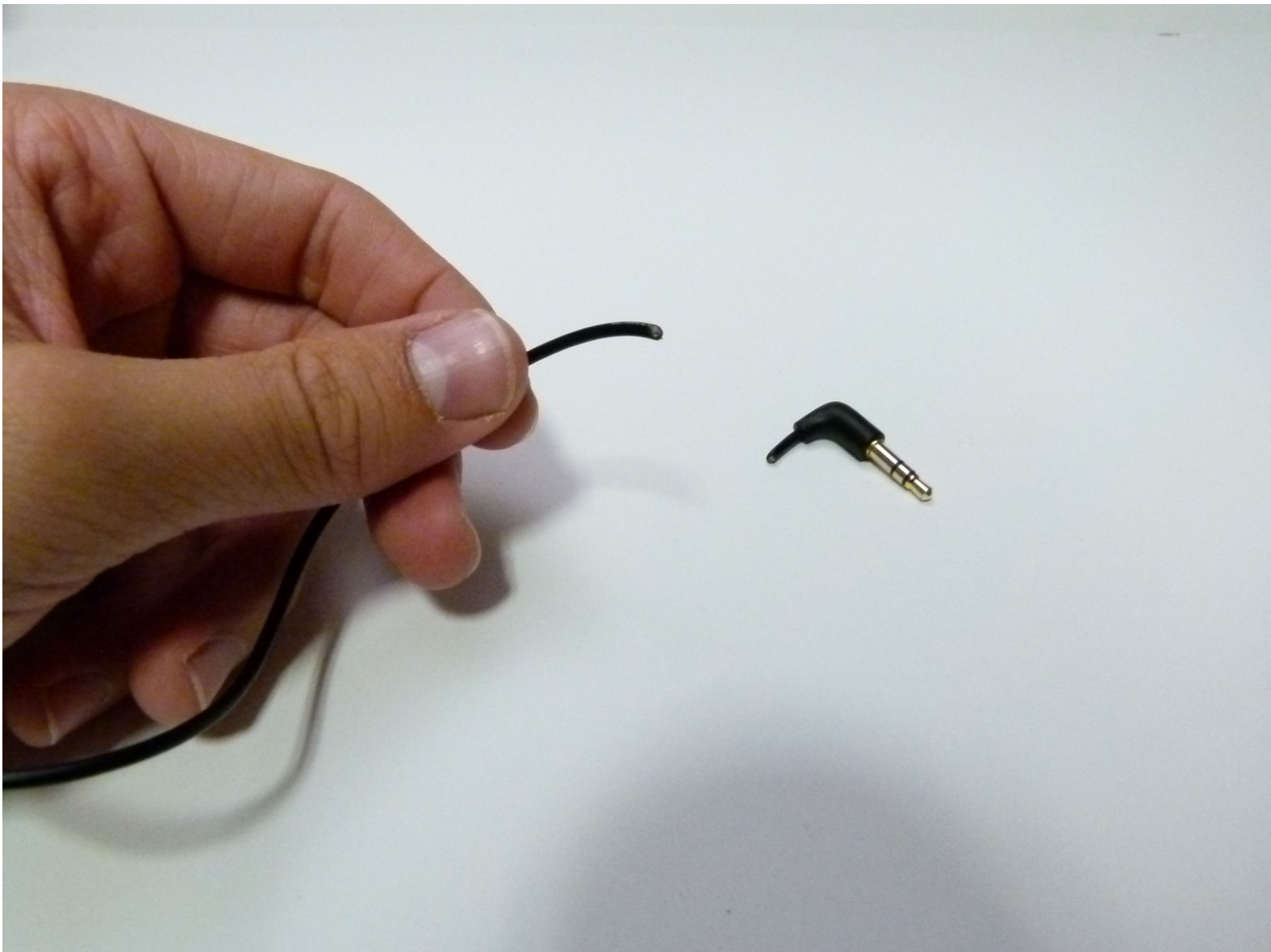




Headphone Plug Replacement

This guide demonstrates the replacement process for the 3.5mm plug on headphones.

Written By: Andrew Yoder



INTRODUCTION

Oftentimes one earpiece of a pair of earphones stops working. The problem is usually where the wires attach to the 3.5mm plug. This guide shows how to replace the plug and fix your earphones.



TOOLS:

- [Soldering Station](#) (1)
- [Solder](#) (1)
- [Flush Wire Cutters](#) (1)
- [Wire Stripper](#) (1)
- [Digital Multimeter](#) (1)

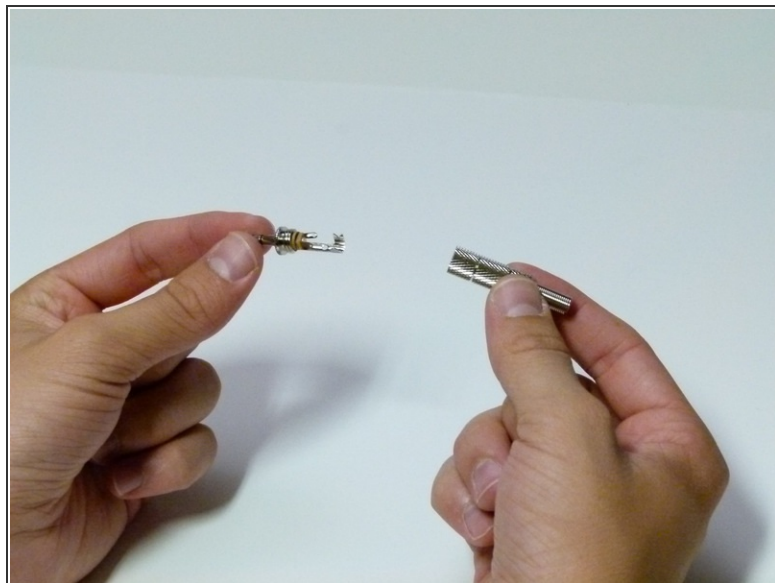
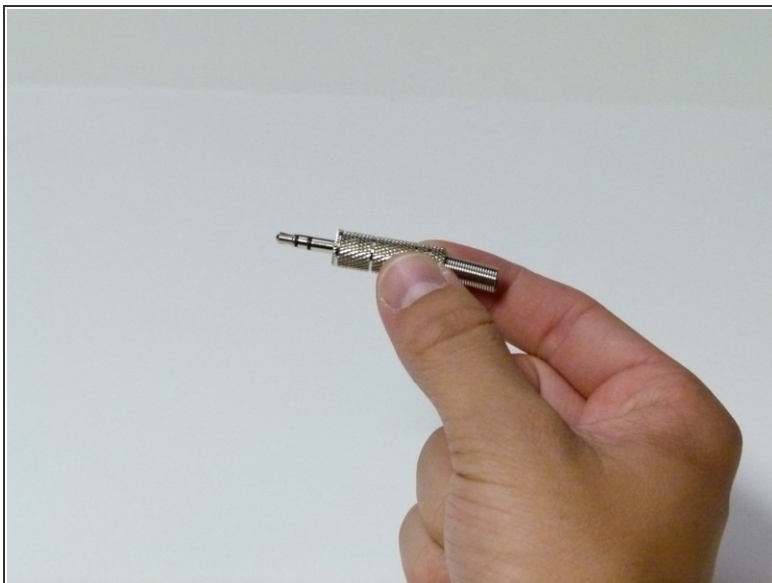


PARTS:

- [3.5mm plug](#) (1)

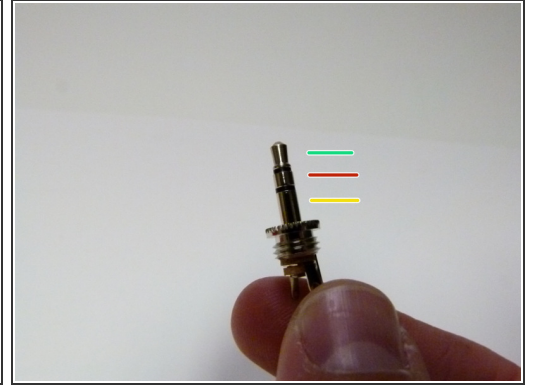
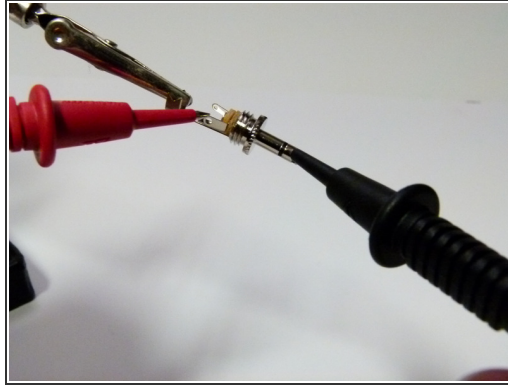
This can be purchased from Radioshack.

Step 1 — 3.5mm plug



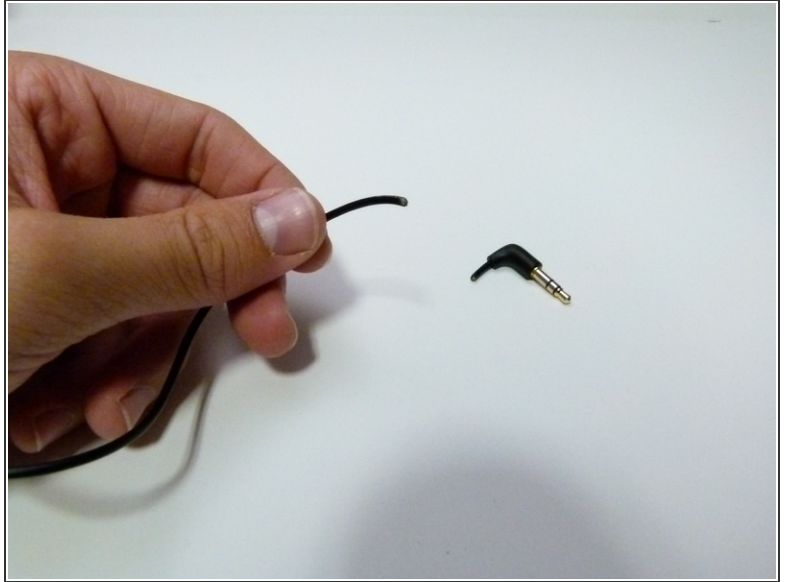
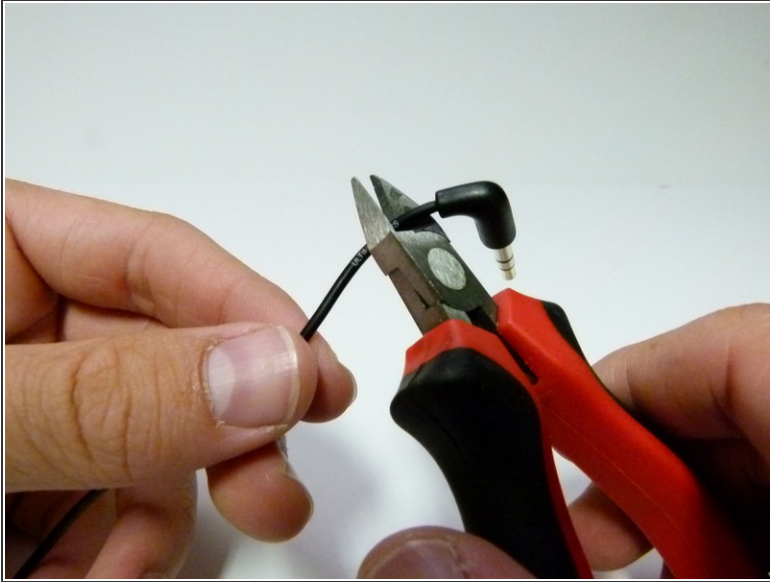
- Unscrew the casing from your replacement plug.

Step 2



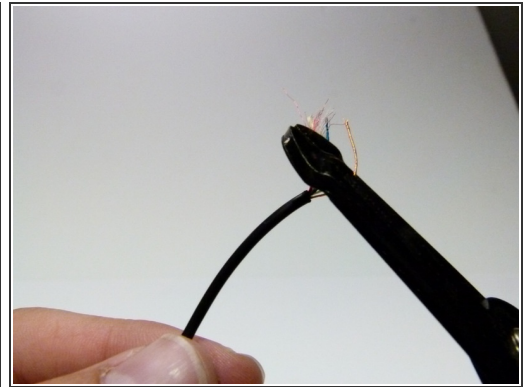
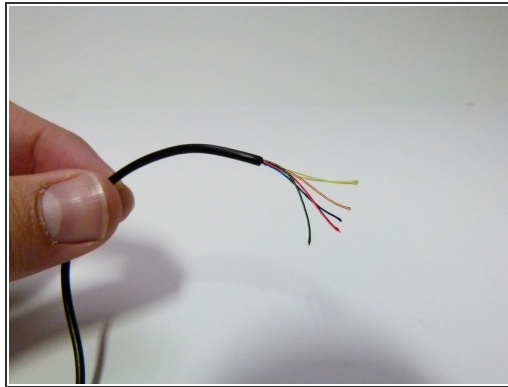
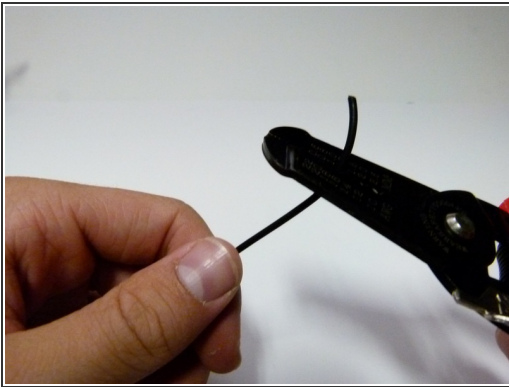
- Using a [multimeter](#) (set in ohms to test resistance), test each terminal on the base of the plug to see which terminal corresponds to which speaker (left or right). You'll know they correspond when a value **other than 1** appears on the multimeter.
 - Image 3 shows which part of the plug corresponds to each cable:
 - Left
 - Right
 - Common (or ground)
- i** My results showed that the terminal with the larger hole corresponded to the right speaker, while the terminal with the smaller hole corresponded to the left speaker. Your results *may* differ.

Step 3



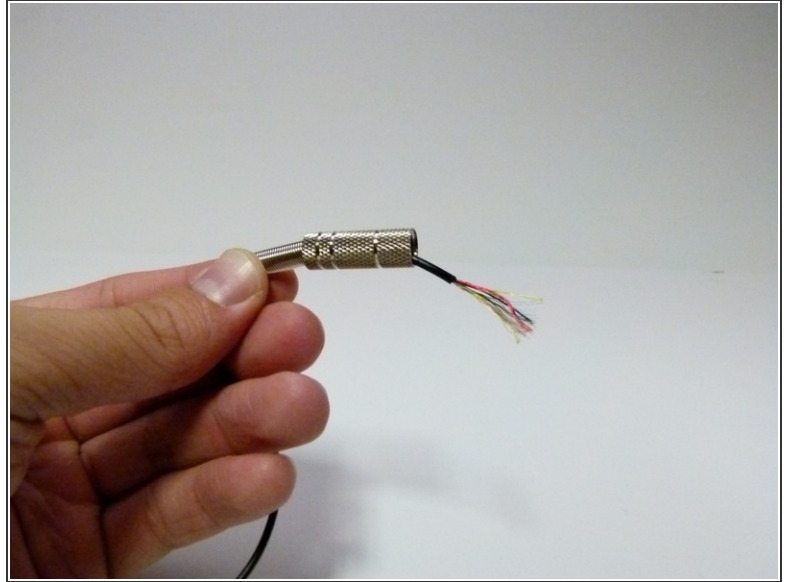
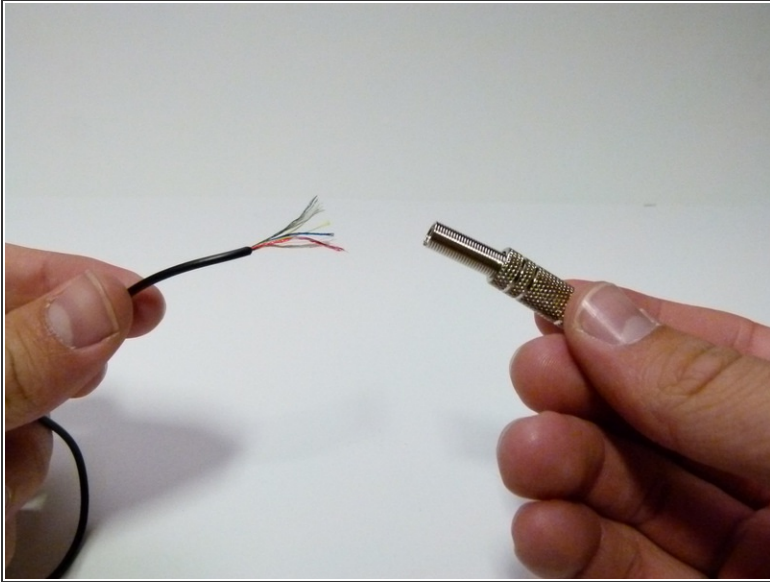
- Using your [wire cutter](#), remove the broken 3.5mm plug from the wire.

Step 4



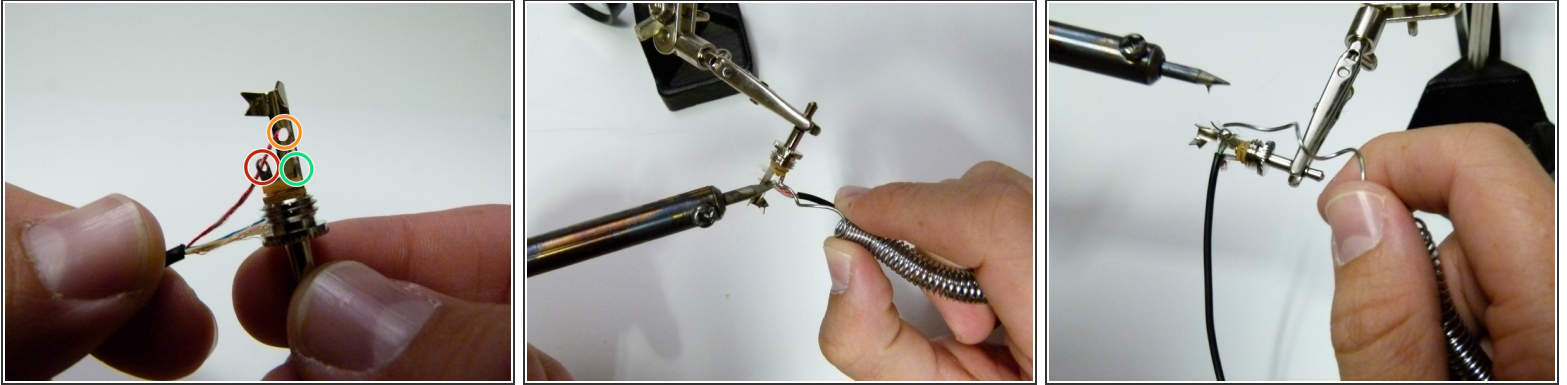
- Use your [wire stripper](#) to expose about 2cm of the the wire.
 - You must also remove the coating from each smaller, individual wire by using a wire stripper, fine sandpaper, or something of that sort.
- i** If you attempt to solder the wires without removing the coating, the connection most likely will not work.

Step 5



- Slide the casing (from Step 1) onto the wire.
 - ☑ You'll have to screw this back onto the plug at the end, so be sure it's facing the correct way.

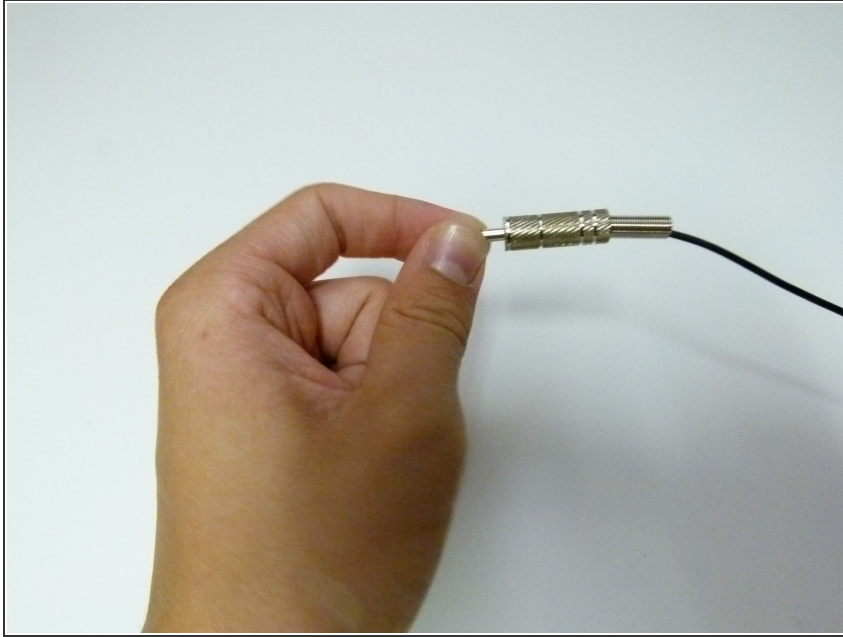
Step 6



✦ [Helping hands](#) may be helpful when soldering. If you have never soldered before, check out this [soldering technique guide](#).

- Slide the red wire through the hole of the terminal that corresponds to the right speaker. Wrap the wire around the terminal a few times, then solder it in place.
 - Repeat this step for the terminal that corresponds to the left speaker. Note that the left audio wire is often white or green.
 - Finally, solder the common/ground wire (often copper colored) and any multicolored wires through the remaining hole.
- i The pictures show a blue wire and several yellow wires. The blue wire was soldered with the ground wire, and the yellow wires turned out simply to be nylon (not actual wires).

Step 7



- To finish, screw the casing back onto the plug.

⚠ Be sure the two terminals (or connecting wires) do not touch each other; if they touch, the fix will not work properly.

If the fix did not work, make sure the wires are in direct contact with the terminals. Also make sure that they are not in contact with each other. If done correctly, your trusty pair of earphones (or headphones) can be trusted for quite a while longer!

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